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Growing Up With Porn: The Developmental and Societal Impact of Pornography on Children

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GROWING UP WITH PORN: THE DEVELOPMENTAL AND SOCIETAL IMPACT OF PORNOGRAPHY ON CHILDREN

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KEYWORDS

pornography, “pornified culture,” society, development, verbal aggression, physical aggression, sexual risk behavior, permissive sexual beliefs, condoms, public health issue, parents, adolescents, children, health professionals, adverse childhood experiences

I AM A PROFESSOR of Sociology and Chair of the American Studies Department at Wheelock College in Boston. I have been researching and writing about the impact of pornography for well over twenty-five years. I am the author of numerous articles and books, including *Pornland: How Porn Has Hijacked Our Sexuality*,¹ which has been translated into four languages, and was a featured book at the Sydney Writers’ Festival in 2011. I have been described as one of the world’s leading scholars in the field, and was honored with the Myers Center Award for the Study of Human Rights in North America.

I recently gave the keynote address at the American Academy of Pediatrics to over 3,000 pediatricians, and have given hundreds of talks to organizations working to stop violence against women and children. I have been invited to address a Vatican-convened conference on Child Dignity in the Digital World, at Pontifical Gregorian University in Rome in October 2017. This March, I spoke on the impact of pornography on youth at the United Nations’ Commission on the Status of Women.

I am a regular guest on television and radio and, in 2013, I was the expert witness for the U.S. Department of Justice against the pornography industry in the case: *Free Speech Coalition v. Eric Holder* #10-4085. In addition to my TEDx talk, “Growing up in a Pornified Culture,”² my work is the focus of a documentary by the Media Education Foundation, titled *Pornland*. I have consulted for a number

¹ Gail Dines, *Pornland, How Porn Had Hijacked Our Sexuality*, (Boston, MA: Beacon Press, 2010).

² Gail Dines, “Growing Up in a Pornified Culture,” TEDx Talks, April 28, 2015, https://www.youtube.com/watch?v=_YpHNIImNsx8 (accessed March 13, 2017).

of governments on how to develop a public health approach to pornography (including governmental agencies in Poland, Sweden, Iceland, Norway, and England).

In addition to being an academic, I am the founding president of the non-profit **Culture Reframed**³ (CR), a research-driven, health-based, non-profit organization in the USA that defines pornography as *the* public health crisis of the Digital Age. I offer in this testimony both a scholarly analysis of the harms of pornography, and a solution to the problem that we have developed at CR by bringing together leading academics, medical experts, parent educators, and international thought leaders. As the first international organization dedicated to addressing the harms of pornography from a public health perspective, we are developing cutting-edge educational programs for parents and health professionals that promote awareness, resilience, and healthy development.

The Scope of the Problem

We are in the midst of a massive social experiment that is having a seismic impact on the sexual templates, behaviors, emotional wellbeing, and attitudes of youth. Never before have we brought up a generation of boys who are a click away from viewing free hardcore mainstream pornography or girls who are growing up in this pornified culture.⁴ The domestication of the Internet, which began around the year 2000, made pornography affordable, accessible, and anonymous, the three key factors to increase demand and consumption.⁵

Porn sites get more visitors each month than Netflix, Amazon, and Twitter *combined*,⁶ with Pornhub alone receiving 21.2 billion visits in 2015.⁷ Studies show that nearly 49% of college males first encounter pornography before age 13.⁸

Given this early age of access, it is important to investigate exactly what type of material these children are exposed to and the impacts on them.

The most respected and cited study on mainstream pornography content found that physical aggression, which included spanking, open-hand slapping, and gagging, occurred in over 88% of scenes, while expressions of verbal aggression—calling the woman names such as “bitch” or “slut”—were found in 48% of the scenes. The researchers concluded that 90% of scenes contained at least one aggressive act if both physical and verbal aggression were combined.⁹

³ See: Culturedframed.org.

⁴ Gail Dines, *Pornland*.

⁵ Jonathan Coppersmith, “Does Your Mother Know What You Really Do? The Changing Nature of Computer-Based Pornography,” *History and Technology* 22, no 1 (2006): 1–25.

⁶ The Huffington Post, “Porn Sites Get More Visitors Each Month than Netflix, Amazon and Twitter Combined,” May 4, 2013, http://www.huffingtonpost.com/2013/05/03/internet-porn-stats_n_3187682.html (accessed March 13, 2017).

⁷ “Pornhub’s 2015 Year in Review,” January 6, 2016.

⁸ Chyng Sun, Ana Bridges, Jennifer Johnson, and Matt Ezzell, “Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations,” *Archives of Sexual Behavior* 45, no. 4 (May, 2016): 983–94. doi:10.1007/s10508-014-0391-2.

⁹ Ana J. Bridges et al., “Aggression and Sexual Behavior in Best-Selling Pornography Videos: A Content Analysis Update,” *Violence against Women* 16, no. 10 (2010): 1065–1085.

Thus, mainstream, online, free pornography is serving as the major form of sex education by which young people are learning about:

- the content and dynamics of sexual interactions;
- how gender is mapped onto sexual relationships;
- what constitutes sexual consent (or lack of);
- the normalization of gendered violence; and,
- sexual scripts that shape femininity and masculinity.

Effects Research

Over forty years of empirical, peer-reviewed research demonstrates that viewing pornography has myriad effects on children, youth, and adults. The most coherent and scholarly way to summarize the impact of pornography can be found, in what social scientists call, a meta-analysis because such peer reviewed articles collect, synthesize, and organize data from a wide range of studies to compile consistent findings. The peer reviewed meta-analyses below identify key areas of harm.

A Meta-Analysis of Pornography Consumption and Actual Acts of Sexual Aggression in General Population Studies:

... the accumulated data leave little doubt that, on the average, individuals who consume pornography more frequently are more likely to hold attitudes conducive to sexual aggression and engage in actual acts of sexual aggression than individuals who do not consume pornography or who consume pornography less frequently.¹⁰

Adolescents and Pornography: A Review of 20 Years of Research:

Adolescents who used pornography more frequently were male, at a more advanced pubertal stage, sensation seekers, and had weak or troubled family relations. Pornography use was associated with more permissive sexual attitudes and tended to be linked with stronger gender-stereotypical sexual beliefs. It also seemed to be related to the occurrence of sexual intercourse, greater experience with casual sex behavior, and more sexual aggression, both in terms of perpetration and victimization.¹¹

Is Sexual Content in New Media Linked to Sexual Risk Behavior in Young People? A Systematic Review and Meta-Analysis:

Cross-sectional studies show a strong association between self-reported exposure to sexual content in new media and sexual behaviors in young people” (i.e., sexually explicit website exposure was correlated with condomless sexual intercourse; and sexting was correlated with ever having

¹⁰ Paul J. Wright, Robert S. Tokunaga, and Ashley Kraus, “A Meta-Analysis of Pornography Consumption and Actual Acts of Sexual Aggression in General Population Studies,” *Journal of Communication* 66, no. 1 (February 2016): p 201. doi: 10.1111/jcom.12201.

¹¹ Jochen Peter and Patti M. Valkenburg, “Adolescents and Pornography: A Review of 20 Years of Research,” *The Journal of Sex Research* (2016): p. 1. doi: 10.1080/00224499.2016.1143441.

had sexual intercourse, recent sexual activity, alcohol and other drug use before sexual intercourse, and multiple sexual partners).¹²

When discussing the impact of pornography, it is crucial to take a gender-based lens where we start from the empirically verified observation that males and females are affected differently by the hypersexualized pop culture and pornography. Research from the American Psychological Association informs us that girls who internalize the messages of the hypersexualized pop culture tend to have more depression, anxiety, lower self-esteem, eating disorders, and risky sexual behavior.¹³ Moreover, girls are more at risk for rape, battery, and being trafficked in a society where pornography is normalized. While girls are not the major consumers of pornography, they suffer the consequences because they engage in sexual relationships with boys and men who have had their sexual templates shaped by mainstream online violent pornography.

A gender-based lens also demands that we understand boys as victims of this predatory industry.¹⁴ Boys who are exposed to mainstream online violent pornography are increasingly being traumatized by the cruel images that assault them when they put porn into a Google search. Research shows that an adolescent brain is primed for novelty and risk taking, and the pornography industry has hijacked this developmental stage by targeting boys as potential consumers.¹⁵ Studies reveal that the more young people are exposed to porn, the harder it is for them to form intimate relationships as they move through adolescence into adulthood.¹⁶

Even though pornography is a multi-billion dollar industry, and approximately one-third of all Internet downloads and searches are porn-related,¹⁷ those tasked with both building protective factors and reducing risk factors for children and youth are largely unaware of the role that pornography plays in promoting what the Centers for Disease Control (CDC) defines as “adverse childhood experiences.” Referred to as ACEs, the research conducted by the CDC and its partners has found that “Childhood experiences . . . have a tremendous impact on future violence victimization and perpetration, and lifelong health and opportunity.”¹⁸ As such, early experiences are an important public health issue.

The CDC argues that adverse childhood experiences have been linked to risky health behaviors, chronic health conditions, low life potential, and early death. The

¹² Lucy W. Smith et al., “Is Sexual Content in New Media Linked to Sexual Risk Behaviour in Young People? A Systematic Review and Meta-Analysis,” *Journal of Sexual Health* (2016). doi: 10.1071/SH16037.

¹³ American Psychological Association, Task Force on the Sexualization of Girls, *Report of the APA Task Force on the Sexualization of Girls*, 2010, <http://www.apa.org/pi/women/programs/girls/report.aspx> (accessed March 13, 2017).

¹⁴ Gail Dines, *Pornland*.

¹⁵ Eric W. Owens, et al., “The Impact of Internet Pornography on Adolescents: A Review of the Research,” *Sexual Addiction & Compulsivity* 19.1-2 (2012): 99-122.

¹⁶ Jochen Peter and Patti M. Valkenburg, “Adolescents’ Exposure to Sexually Explicit Internet Material, Sexual Uncertainty, and Attitudes toward Uncommitted Sexual Exploration, Is There a Link?” *Communications Research* 35, no. 5 (2008): 579–601.

¹⁷ Stephen Yagielowicz, “Report: The Internet Really Is for Porn,” *Xbiz*, April 4, 2012, <http://www.xbiz.com/news/146703> (accessed March 13, 2017).

¹⁸ Center for Disease Control and Prevention, “Adverse Childhood Experiences,” <https://www.cdc.gov/violenceprevention/acestudy/> (accessed March 13, 2017).

research demonstrates that exposure to pornography from an early age should be viewed as an ACE given its long-term effects, and hence requires a solution that harnesses the protocols of a public health approach to a social problem.

Why is Pornography a Public Health Issue?

The CDC Foundation defines public health as “the science of protecting and improving the health of families and communities through the promotion of healthy lifestyles”¹⁹ by focusing on improving health at a macro-social level. Rather than seeing a problem as individually-based, a public health approach reframes the issue to foreground how pornography has systemic health and cultural impacts that cause harm to individuals, families, and communities. Using Dr. Urie Bronfenbrenner’s Ecological Systems Model²⁰ of how individuals are located and affected by a complex web of networks that socialize children into adulthood, the public health approach, developed by Culture Reframed, offers solutions that are multi-paradigmatic, multi-sectoral, and multi-disciplinary.

The Solution Using a Public Health Paradigm

By adopting a public health model, public health experts, educators, and activists break down the silos that exist within and across disciplines, to create a seamless approach to addressing the harms of pornography from the micro to the macro level. Understanding that every major social problem requires a collective, multi-lateral response, we bring together experts and stakeholders who are working to

- build capacity for healthy children, families, schools, and communities;
- stop violence against women and children;
- develop healthy sexuality programs and sex/gender equality education; and,
- educate health professionals on building resilience and resistance in children to pornography.

Culture Reframed has built a team that draws from a wide range of sectors such as public health experts, child protective services, parents’ groups, professional health organizations such as the American Academy of Pediatrics, youth leaders, educators, anti-trafficking organizations, medical experts, feminist activists, rape crisis centers, and pro-feminist men’s groups. Together, our experts bring to the table a richness of knowledge and a plurality of well-honed skills all in the service of building the first ever anti-pornography health-based organization. To this end, Culture Reframed is building robust, comprehensive programs for parents and health professionals.

Parents are our first and often most influential teachers and, according to studies, a supportive family environment is a key preventive factor. This means that it is imperative that they become educated about this serious threat to their children’s well-being, and that they are equipped with the skills needed to have “courageous conversations” with their children. Unfortunately, many are unaware of the degree of brutality and dehumanization that is common in today’s mainstream

¹⁹ CDC Foundation, “What is Public Health,” <https://www.cdcfoundation.org/content/what-public-health> (accessed March 15, 2017).

²⁰ Urie Bronfenbrenner, “Ecological Models of Human Development,” in *International Encyclopedia of Education* 3, 2nd Edition (Oxford: Elsevier, 1994).

pornography, they have no idea that pornography is so accessible, and they do not know how to approach their children about this topic.

Similarly, health professionals play a major role in risk prevention. In June 2016, the American College of Pediatrics urged “professionals to communicate the risks of pornography use to patients and their families and to offer resources both to protect children from viewing pornography and to treat individuals suffering from its negative effects.”²¹ However, health providers have been left unprepared and ill-equipped to deal with this mounting crisis. Culture Reframed’s Health Professionals Program will enable providers to keep pace with cutting-edge research and scientific evidence regarding education, prevention, assessment, intervention, and more.

Plan of Action

Culture Reframed is building two programs designed to equip parents and health professionals with the education and tools needed to mobilize treatment, research, and prevention across families, communities, and institutions.

Program 1: Parents’ Program

This program will consist of two key components: 1) providing parents with the knowledge and skills needed to talk effectively with their children and other parents/caregivers about pornography and healthy sexuality, and 2) facilitating online and face-to-face connections between parents/caregivers seeking information and support. Program components will include:

- Video lessons, interviews, and accessible talks by professionals on the nature and extent of hypersexualized media and pornography today, the harmful effects of pornography, healthy child and youth development, and healthy relationships and sexuality.
- Video interviews and accessible talks by professionals that demonstrate age-appropriate language to communicate with children about the impact of pop culture and pornography on individual, family, and community health, modeling best practices for influencing positive attitudinal and behavior change.
- Resources to foster support among parents to access health services to facilitate systemic change.
- PowerPoints produced by seasoned parent educators on how to have “courageous conversations” that can be downloaded by people interested in educating their community. The presentations contain images, a script, and a “toolbox” that acts as a guide for giving successful presentations.

Program 2: Health Professionals Program

This program seeks to educate and increase awareness among health professionals, thereby enabling them to recognize problems related to pornography consumption—especially in children and adolescents—and referring them to appropriate networks for care. Some portions of this program will be online, while others will be delivered at our annual conference. The program will be tailored to the medical, educational, therapeutic, and legal professional communities, and continuing education credits will be offered. Program components include:

²¹ American College of Pediatricians, “The Impact of Pornography on Children,” (June, 2016), <https://www.acped.org/the-college-speaks/position-statements/the-impact-of-pornography-on-children> (accessed March 13, 2017).

- Understanding the socio-cultural climate within which pornography is produced and consumed;
- Learning about the content and prevalence of pornography today and how consumption shapes social, emotional, cognitive, and relational development;
- Establishing a working model of healthy culture and healthy sexuality that is developmentally appropriate and based on gender equity;
- Exploring best practices for building an integrated public health approach to the harms of pornography that is multidisciplinary, multi-sectoral, and multi-cultural;
- Resourcing professionals with cutting-edge research on the effects of pornography;
- Developing protocols to integrate treatment interventions into existing protocols across health professions.

Expected Outcomes

Culture Reframed expects to achieve the following outcomes with its robust, interrelated programs:

- Increased understanding among parents about the importance of talking to their children openly and honestly about pornography, and increased skills and confidence with regard to having “courageous” conversations about healthy sexuality, risky sexual behavior, and the harms of pornography.
- Decreased isolation among parents, who will be connected with health providers who specialize in developing healthy sexuality, building self-esteem, and providing help for children and teens struggling with porn addiction.
- Decreased isolation among health professionals and a more coordinated, coherent effort as a result of connecting professionals from across disciplines.
- Increased knowledge and skills of health professionals regarding the effects of pornography on neurological, emotional, and sexual development.
- Increased knowledge and awareness among parents and health professionals of both the harms of pornography *and* strategies for building resilience and resistance to a pornified culture.
- Increased knowledge and awareness among youth connected to participating parents and health professionals, as evidenced by documented changes in attitudes and behavior.

Following the Bronfenbrenner model, Culture Reframed will be developing targeted programs to teachers, community organizers, youth leaders, colleges, and other organizations that engage individuals at the collective level.

Linking Public Health Approach to Other Social Change Mechanisms

A cultural paradigm shift in knowledge and skills provides the backdrop for a mass-education program to facilitate changes in policy on:

- age verification protocols at the ISP level;
- opt in/opt out policy at ISP Level, as developed in the UK;
- filters to prevent youth accessing pornography at ISP Level;
- curriculum changes in medical boards to include units on socio-medical harms of porn; and,
- public service announcements on the harms of porn.

Culture Reframed believes that all young people have the right to author a sexuality that is authentic and rooted in respect, intimacy, and connection. To this end, we gender our understanding of how porn culture shapes sexual identity, relationships and sexual templates. Our programs incorporate this assumption while delivering anti-sexist education, knowledge, and skill sets. Core to our gender equity mission is that both males and females thrive when they have bodily integrity, life-loving relationships, and a deep capacity for empathy and love.

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Dr. Gail Dines is Professor of Sociology and Women's Studies at Wheelock College in Boston, where she is also chair of the department. She has been researching and writing about the porn industry for well over twenty-five years. Dr. Dines is a recipient of the Myers Center Award for the Study of Human Rights in North America and author of numerous books and articles. Her latest book, *Pornland: How Porn Has Hijacked Our Sexuality*, has been translated into five languages. Dr. Dines is the founding president of the NGO, Culture Reframed. Dedicated to building resilience and resistance in children and youth to the harms of a hypersexualized and pornified society, Culture Reframed develops cutting-edge educational programs that promote healthy development, relationships, and sexuality. An internationally known speaker and consultant to universities, public health organizations, and governmental bodies here and abroad, Dr. Dines has been described as the leading anti-porn scholar/activist in the world. In addition to her recent TEDx talk, Dr. Dines' work is the focus of a new film by the Media Education Foundation called *Pornland: The Documentary*.

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REFERENCES

- Bridges, Ana J. "Pornography's Effects on Interpersonal Relationships." In *The Social Costs of Pornography*, edited by James R. Stoner and Donna M. Hughes, 89–110. Princeton: Witherspoon Institute, 2010.
- Bronfenbrenner, Urie. "Ecological Models of Human Development." In *International Encyclopedia of Education* 3, 2nd Edition. Oxford: Elsevier, 1994.
- Centers for Disease Control and Prevention, "The Public Health Approach to Violence Prevention." March 25, 2015. <https://www.cdc.gov/violenceprevention/overview/publichealthapproach.html>.

- CDC Foundation. "What is Public Health."
<https://www.cdcfoundation.org/content/what-public-health>.
- Coopersmith, Jonathan. "Does Your Mother Know What you *Really* Do? The Changing Nature of Computer-Based Pornography." *History and Technology* 22, no. 1 (2006): 1–25.
- Dines, Gail. *Pornland: How Porn Has Hijacked our Sexuality*. Boston: Beacon Press, 2010.
- . *Growing up in A Pornified Culture*. 2015.
https://www.youtube.com/watch?v=_YpHNIImNsx8&t=12s.
- Flood, Michael. "Exposure to Pornography among Youth in Australia." *Journal of Sociology* 43 (2007): 45–60. doi:10.1177/1440783307073934.
- Foubert, John, and Matthew W. Brosi, and R. Sean Bannon. "Pornography Viewing among Fraternity Men: Effects on Bystander Intervention, Rape Myth Acceptance and Behavioral Intent to Commit Sexual Assault." *Sexual Addiction & Compulsivity* 18, no. 4 (2011):212–231. doi: DOI: 10.1080/10720162.2011.625552.
- Hilton, Donald. "Pornography Addiction – A Supranormal Stimulus Considered in the Context of Neuroplasticity." *Socioaffected Neurosci Psychol* 3 (2013). doi: 10.3402/snp.v3i0.20767.
- Huffington Post. "Porn Sites Get More Visitors Each Month Than Netflix, Amazon and Twitter Combined." May 4, 2013. http://www.huffingtonpost.com/2013/05/03/internet-porn-stats_n_3187682.html.
- Owens, Eric W., et al. "The Impact of Internet Pornography on Adolescents: A Review of the Research." *Sexual Addiction & Compulsivity* 19.1-2 (2012): 99-122.
- Peter, Jochen and Patti M. Valkenburg. "Adolescents and Pornography: A Review of 20 Years of Research." *The Journal of Sex Research* (2016): 1–23. doi: 10.1080/00224499.2016.1143441.
- . "Adolescents' Exposure to Sexually Explicit Internet Material, Sexual Uncertainty, and Attitudes toward Uncommitted Sexual Exploration, Is There a Link?" *Communications Research* 35, no. 5 (2008): 579-601.
- Smith, Lucy W., Bette Liu, Juliet Richters, George Patton, Handan Wand, Donna Cross, Jane S. Hocking, et al. "Is Sexual Content in New Media Linked to Sexual Risk Behaviour in Young People? A Systematic Review and Meta-Analysis." *Sex Health* (2016). doi: 10.1071/SH16037.
- Sun, Chyng, Ana J. Bridges, Jennifer A. Johnson, and Matthew B. Ezzell. "Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations." *Archives of Sexual Behavior* (2014): 1–12. doi: 10.1007/s10508-014-0391-2.
- Wright, Paul J., Robert S. Tokunaga, and Ashley Kraus. "A Meta-Analysis of Pornography Consumption and Actual Acts of Sexual Aggression in General Population Studies." *Journal of Communication* 66, no.1 (2015): 1–23. doi: 10.1111/jcom.12201.